

Web extra Quality assessment of studies using criteria adapted from Newcastle-Ottawa quality assessment scale

Study Country	Participant selection * ≥ 80% eligible patients invited and agreed to participate OR sample size ≥ 300. PR=participation rate	Measurement of emotional distress (assessment time) * = Used reliable and valid tool [†] M=means SD=standard deviation	Comparability on confounders ** = P & NP equivalent on age (A), previous ART (E), parity (P) and duration of infertility (D); * = Equivalent on at least two confounders and not unequal on others	Outcome & follow-up * = ≥ 80% completion rate (agreed/analysed, CR) for treated patients ^{††} PT=Pregnancy test Scan=foetal scan at six weeks	Total quality rating low (0 to 2 stars), average (3 stars) or high (4 to 5 stars).
Akyuz 2006 Turkey [abstract]	Patients attending clinic, unexplained infertility, ICSI only, all had ET, PR= Authors report that all 80 invited agreed	*STAI state, beginning of IVF; M/SD at conference	P	*Positive PT, author reports 100% (80/80) CR	Low
Anderheim 2005 Sweden	*All patients attending pre-IVF information session, PR=83.0% (166/200)	PGWB – Anxiety, one month before onset of down-regulation	A, P, D and smoking status but NP > P on E	*Positive scan, author reports CR=100% (139/139), denominator excludes 27 no ET)	Low
Boivin 1995 Canada	Patients referred by doctors, first-time IVF only, PR=71.4% (50/70)	*STAI State, 1.83 months before IVF (email)	**A, P, D, E, and years in treatment, diagnosis	* Positive PT, CR=80% (40/50), denominator excludes 13 not started and 7 no ET	High
Demyttenaere 1992 Belgium	First 80 consecutive patients, attending for IVF, PR=50% (40/80)	*ZDI, Day 4-5 follicular	No evidence reported	* Positive PT, CR=100% (40/40)	Low
Demyttenaere 1998 Belgium	Referred to study by doctor, primary infertility, IVF, PR=78.4% (98/125)	*ZDI, Day 3 follicular	**A, P, D, E	* Positive scan, CR=100% (125/125)	High
Ebbesen 2009 Denmark	*Consecutive admissions, first cycle of IVF PR=53.0%, 837/1578	*BDI II; returned before first follicle scan	*Author reports controlling for A, D and diagnosis. All first time IVF (E).	* Positive scan, CR=96.7%, 809/837	High
de Klerk 2008 Netherlands	*All couples attending IVF planning consultation and suitable and having a single embryo transfer (SET), excluding those with previous unsuccessful IVF cycle, PR=not reported, 391 agreed	*HADS – Anxiety, six weeks before IVF/ICSI	*Author reports that A, D not significant predictors of outcome status	Live birth, CR=77.9% (289/371), denominator excludes 10 not started & 10 pregnant waitlist	Average
Klonoff-Cohen 2001 United States	Patients accepted for IVF/GIFT in 7 clinics excluded those with pre-existing illness, PR=not reported because eligible not known, N=151 participated	*POMS- Anxiety, prior to first visit and start of IVF M & SD by email	*Author reports odds ratio adjusted for A, P, E and race, education, type of ART, ever smoked	*Live birth, CR=90.1% (136/151)	Average
Lancastle 2008 UK	*All patients attending initial consultation for IVF, PR=90.8% (129/142)	*STAI state, 2.84 months before IVF (Means & SD by email)	*A, D, E (email)	Positive PT, CR=76.8% (76/99), denominator excludes 30 no ET (email)	Average

Lee 2006 United States [abstract]	*Patients undergoing fresh IVF cycle, PR not reported, N=804 participated	*CES-D, Day 3 follicular Means & SD by email	D (email)	Positive scan, CR=not reported but 804 analysed (email)	Low
Lintsen 2009 Netherlands	*All new couples with an indication for IVF/ICSI in 11 clinics and 3 hospitals, first-time ART only, PR=69.7% (783/1124)	*STAI state 1 to 2 months pre	*A, D, E and primary infertility and diagnosis	* Positive scan, CR=97.8% (690/705), denominator excludes 78 no ET	High
Merari 2002 Israel	Patients attending for IVF, with primary and tubal/unexplained infertility, PR=93.3% (126/135)	*STAI state, 10 to 15 days before IVF Means & SD (email)	**A, P, D, E (Merari 1992 and email)	* Positive scan, CR=89.7% (113/126), denominator excludes 10 did not start and 3 pregnant waitlist	High
Sanders 1999 Australia	New patients attending for IVF/GIFT, 101 agreed, authors report PR=45.7%	*STAI state, 1 to 3 months before ART Means & SD (email)	No evidence reported	* Positive scan, 93.8% (90/96), denominator excludes 5 did not start)	Low
Verhaak 2001 Netherlands	*Consecutive patients attending for IVF/ICSI, PR=82.8% (207/250)	*STAI, 3 to 10 days before IVF	*A, P, D	* Positive scan, 100% (207/207)	High

Note: P=pregnant and NP= not pregnant. SET criteria were age < 38 years, regular cycle, normal BMI. [†]Standardised questionnaire based on previous meta-analysis Hammerli et al. 2009 and Bowling et al.. ^{††}Not all patients get treated due to being pregnant on waitlist or deciding against ART. BDI = Beck Depression Inventory; BDI = Beck Depression Inventory – Primary Care (PC); CES-D = Centre for Epidemiologic Studies; HADS= Hospital Anxiety and Depression Scale anxiety; PGWB = Psychological General Well-Being; POMS = Profile of Moods Scale [unipolar] anxiety or bipolar depression; ZDI = Zung Depression Inventory. *Selection* was met when ≥ 80% eligible were invited and ≥ 80% agreed to participate or when sample size > 300 (*). *Comparability* was met when studies showed evidence that at study entry Pregnant and non-Pregnant groups were equivalent on age, ART experience, parity and duration of infertility (**) or when there was equivalence on any two without inequality on others (*). *Measurement quality* was met when reliable and valid methods were used to assess anxiety or depression (*). *Quality of outcome and follow-up* was met when the completion rate (agreed to participate/analysed) for those doing ART study was ≥ 80% (*). The overall *quality rating* was low (0 to 2 stars), average (3 stars) or high (4 to 5 stars).